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Implication of the Budget Allocation Reduction on Teaching and Learning Process

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Abstract

Malaysian Budget 2010 stated that in order to strengthen public universities so they will become more competitive, the government has agreed to consider giving autonomy to public universities to reduce their financial dependence on the government. Thus, to support this intention, the university has reduced the allocation received by the faculty in 2010. The purpose of this paper is to present the results of the fund allocation reduction implication received by the Faculty of Engineering and Built Environment on teaching and learning process in 2010. The method used was analyzing the faculty financial data from 2005 to 2010 related to the total allocation received and expenditure made from the university financial system. Further method was conducting interview with science officer from each department in the faculty related to the allocation received by the department in 2010 and taking photos around the faculty as physical evidence resulted from the reduction of allocation in 2010. From the results, it was found that the reduction of allocation in 2010 shows a decline in teaching and learning process in all departments in the Faculty of Engineering and Built Environment.

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1. Introduction

Faculty of Engineering and Built Environment (FKAB) was established on 1984 and has grown to become a faculty that excels in various aspects including engineering education and research. To realize the faculty and the university's goal, FKAB has provided conducive infrastructure for students to ensure smooth and effective teaching and learning process. The year 2009 showed that the country's economic state was declining resulted from the global economy negative impact. This indirectly resulted in decreased government funding and affected the university annual allocation (Universiti Kebangsaan Malaysia 2009). Budget 2010 stated that in order to push public universities to become more competitive, the government has agreed to consider granting the autonomy control to universities to reduce their financial dependence on the government (Dewan Rakyat Malaysia 2009). Therefore, the university has reduced the allocation for every faculty to support this goal. The year 2010 has shown that the

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university has experienced significant cuts and decrease in allocation on major expenditures such as emoluments, utilities and rent and has affected the management of the university in distributing the allocation (Universiti Kebangsaan Malaysia 2010).

The allocation for 2010 has decreased 11.2% compared to the previous year thus, every public expenditure has to be made wisely and contain value for the money. Therefore the implementation of a program, activity or project must be consistent with the approved amount of fund allocation. All expenses has to be carefully planned so that it would not exceed the allocation and to avoid wastage (Kementerian Kewangan Malaysia 2010). The decrement of allocation given by the university to the faculty has also reduced by 40% of the allocation for 2010. Referring to the University's teaching and learning policy, item 5.7, "a faculty is responsible to provide conducive infrastructure, equipments and environment to achieve effective teaching and learning process." Each lecture room and laboratory should be equipped with appropriate equipments such as LCD, white board and seats and have to be maintained regularly for learning and teaching purpose. As the allocation is reduced, maintenance process cannot be performed. Furthermore, the faculty also needs to provide computer laboratories and hot spot for students convenience. Each faculty is encouraged to provide spaces for teaching and learning that are more flexible such as studio, speech corner and scientific discourse room. In addition, the faculty needs to build a prosperous intellectual environment that would stimulate the students to engage actively in their learning and to build partnerships between educators and students. Thus, this paper is to present the effect of the reduction of allocation for the faculty on learning and teaching process and the results from the effect.

2. Methods

In this study, the allocation and expenditure data was collected by the faculty from the year 2005 to 2010 from the University Financial System. Recent faculty expenditure data up to August 2010 was also included. The data collection process was obtained by sending an application to the faculty financial assistant officer in order to print a copy of the data. The data was then analyzed and the results were compared.

Interview was conducted with science officer from each department to observe the effect of the received allocation reduction on these matters:

- In-state travel and self expense allowance
- Attendance to conference
- Office supplies
- Graduates research supplies
- Teaching and research materials supplies
- Maintenance for teaching and research materials
- Payment for temporary and part-time staffs
- Function, hospitality and honorarium
- Training services

Further stage, photos were taken for physical proof of the effects on the faculty resulted from the reduction of allocation. The highest amount of allocation received was made in 2009 and that amount is used as a benchmark for measuring the percentage of provisions received and spent by the faculty with a value of 100% as shown in Figure 1. The least allocation received was in the year 2010 which was 60.69% compared to the one received in 2009. This shows reduction of almost 40% of the allocation received by the faculty received in 2010 compared to the year 2009. Meanwhile the highest expenditure recorded was in 2008 which was 117.13%. The smallest amount of expenditure spent by the faculty was in 2007 which was a total of 77%. Expenditure data in 2010 should not be regarded as the lowest because the data only covers the faculty's expenditure up to August only. Normally FKAB spent more than the allocation given, not something good to practice but need to be done because in engineering field, the big amount of expenditure was crucial especially with the increasing addition of graduate students. These graduates need a lot of facilities such as rooms for graduate faculty, laboratory facilities for research purposes to meet the requirement for research at master and PhD level. Provision of this facilities has increased the faculty's expenditure for post-graduates from each year to year resulted from the increasing number of students.

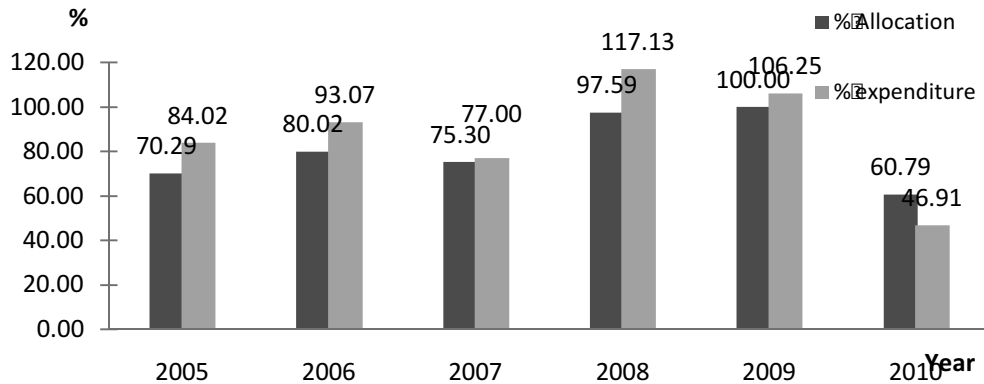


Figure 1 Percentage of the faculty's allocation and expenditure from 2005 to 2010

The study is focused on the comparison of allocations received by the faculty in 2009 and 2010. Figure 2 shows the percentage of allocation received by every departments in the faculty for 2009 and 2010. Each JKMB, JKEES, JKPP and JKAS received allocation of 8.1% in 2009 while the allocation received by JSB is 6.3%. The Dean's office received a total of 61.4% of the allocation in 2009. For 2010, JKMB, JKEES, JKPP and JKAS received 13.1% of the allocation and JSB, 6.8%. Meanwhile there is a decrease of allocation received by the Dean's office which is 40.7%. This shows that despite of the reduction being made on the allocation, the total financial allocation to the department for teaching and learning process is not reduced much. The obvious effect was on the dean's office which managed more staffs for the students. There also no tea allocation for staff meeting which are less than 2 hours and no allocation to purchase equipments such as ink, toner and paper were reduced except for urgent needs, such as for postgraduate examinations and external audit process.

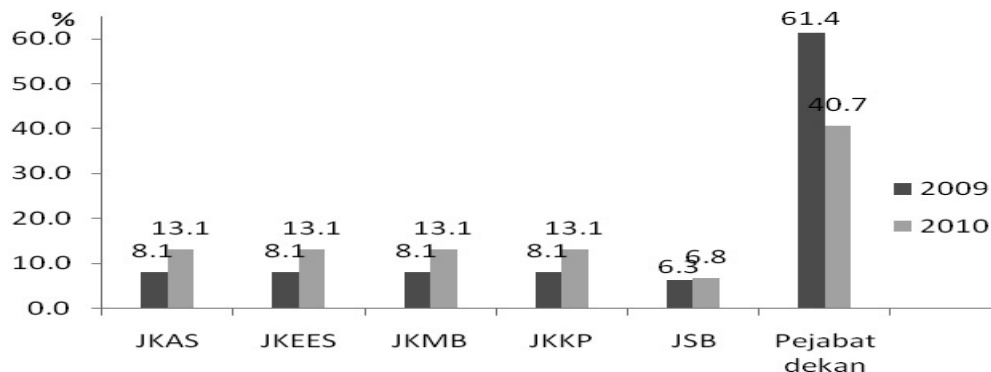


Figure 2 Percentage of departments allocation on 2009 and 2010

Figure 3 is a summary of the overall expenditure in 2009 which shows the biggest allocation for office supplies which was 28% followed by teaching and research materials supplies, 26%. This shows that the faculty was very concerned about teaching and learning process than others. However, drastic changes on the allocation received by the faculty has made the faculty more prudent in spending in 2010. The treasurer of UKM has introduced a system of vote books and categorized them into 6 parts; the Dean's office and five of the departments to facilitate the monitoring of expenditure of each department which began in 2010. Figure 4 shows the Dean's office's expenses were more focused on operating expenditure, which recorded higher expenses in office supplies, 33% in total

expenditure resulted from high office supplies usage such as papers. Expenditure on hospitality and honorarium was also high at 22% which indicated the importance of managing the faculty staffs.

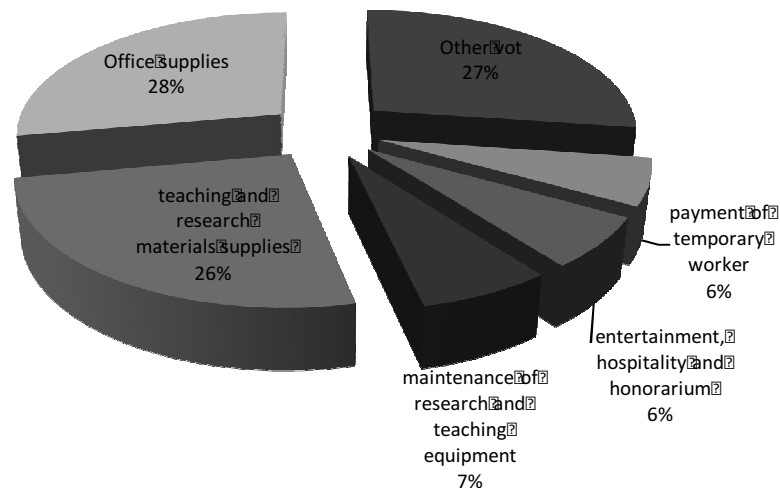


Figure 3 Percentage of the faculty's expenditure in 2009

Figure 5 shows the expenditure allocation by JKAS up to August 2010. The highest allocation with 22% was office supplies that is the printer's ink and accreditation requirements for EAC. In 2010, it also shows that JKAS used a lot of the allocation on the maintenance process on teaching and researching materials which was 13% and the purchase of teaching and researching materials with 17% from JKAS' expenses. Figure 6 shows that JKEES' expenditure up to August 2010. Teaching and researching materials cover the department's expenditure which was 75%. This is due to most of the components used were the disposable types and they need to be purchased constantly for teaching and learning process especially for students activities and final year students' projects.

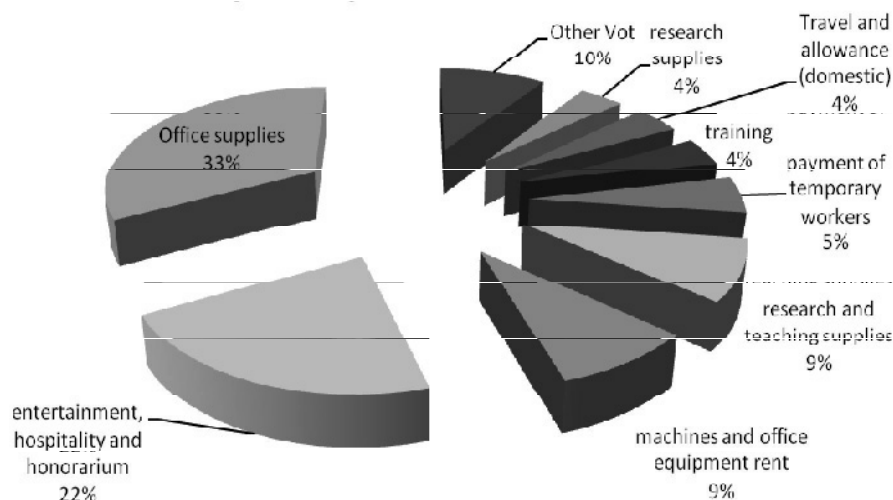


Figure 4 Percentage of the Dean's Office's expenditure up to August 2010

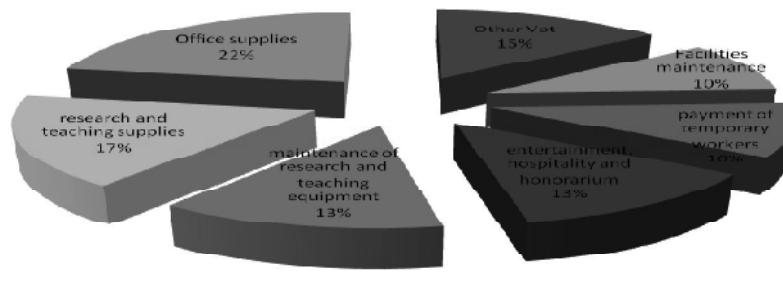


Figure 5 Percentage of JKAS' expenditure

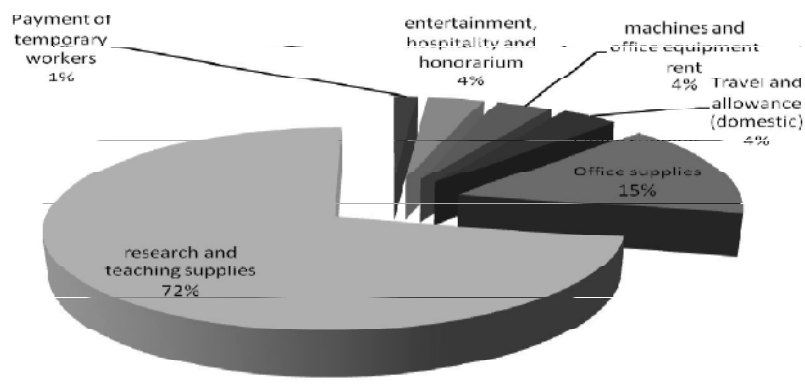


Figure 6 Percentage of JKEES' expenditure

Figure 7 shows the expenditure made by JKKP shows that 45% of the purchase was on teaching and researching materials. This is due to the need of chemicals that are widely used by the students and also many types of gas used in teaching and learning. However, Figure 8 shows JKMB's expenditure where 53% was used on teaching and researching materials, indicating that the students are the priority by the department. This high percentage due to high cost of experiments and lot of materials been purchased. Despite, the JSB department spent more on office supplies which was 39% and on temporary staffs which was 23% shows in Figure 9. This highly percentage regards of the materials used by JSB students are in the forms of office supplies such as papers, boards and other accessories which were always used in students' projects. The high payment for temporary staffs was due to the fact that most of the teaching staffs in this department were temporary where most of the permanent staffs were on study leave.

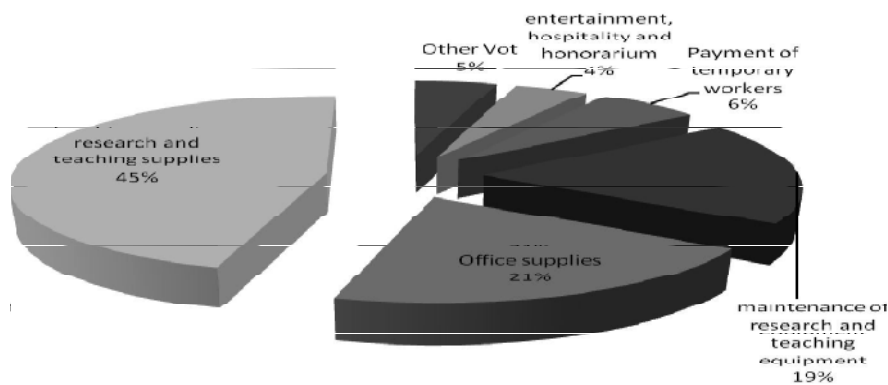


Figure 7 Percentage of JKKP's expenditure

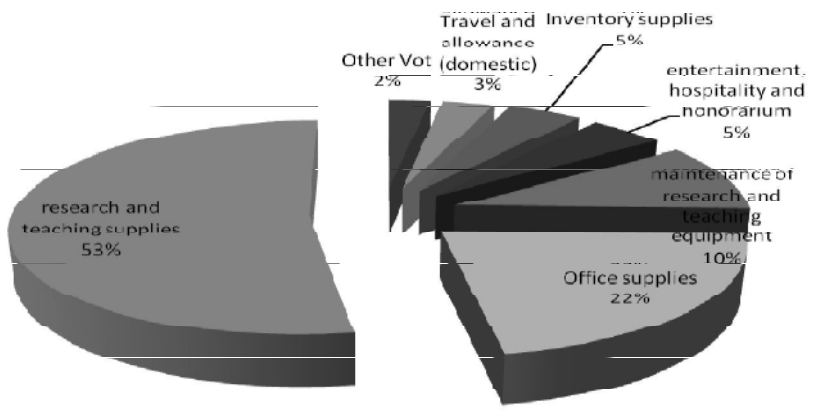


Figure 8 Percentage of JKMB's expenditure

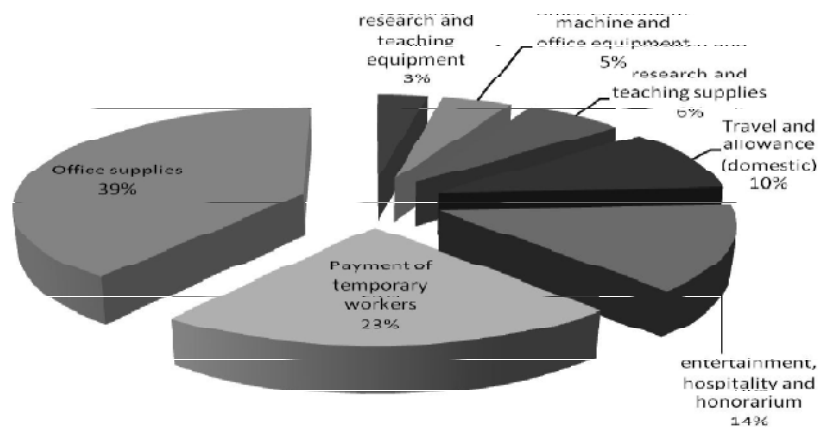


Figure 9 Percentage of JSB's expenditure

As overall, Figure 10 shows the percentage of expenditure made by every departments up to August 2010. This percentage was based on the number of allocation received by each department in early 2010. JSB department showed the highest percentage of usage which was 108% followed by the Dean's Office, 89%, JKKP 73%, JKAS 66% followed by JKMB, 61% and finally JKEES, 57%. JSB high expenditure was due to the extensive costs allocated to the payment of part-time lecturer position.

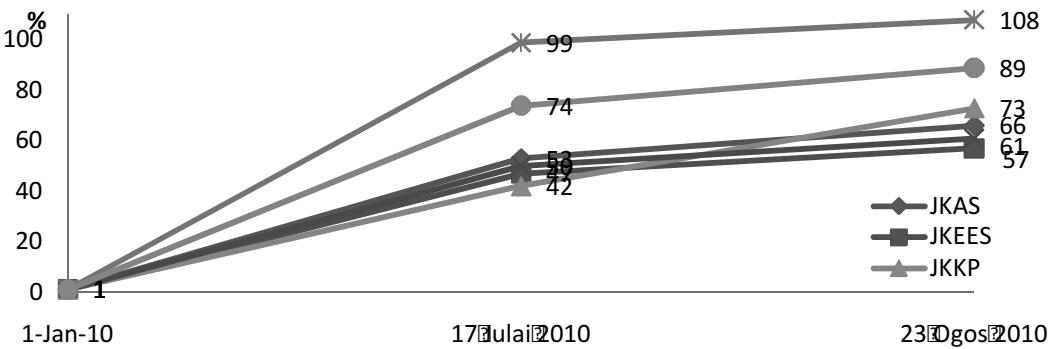


Figure 10 Percentage of expenditure made by every departments until August 2010

The result of interviews with science officer is shown in Table 1. From the survey, the question of teaching and research materials supply and maintenance of equipment was the main focus due to the significant reduction in provisions in 2010. The situation become more difficult when the purchases was made at the end of 2009 become commitment in 2010. With this allocation to each department for the coming year 2010 need to be reduced. Reduction of provision for the supply of teaching and research department showed that there was a bit worrying that the department had to reduce the number of sets of disposable equipment supplies for first year students. Many students' projects cannot be proposed in full such as ROBOCON competition. Some good components of the teaching of students had to be recycled. Requirements such as laboratory chemicals and gases cannot be purchased due to lack of adequate funding. Other impacts of the project are to the final year students due to lack of funding for their project at the end of the year. To resolve departments need to make the payment in installments and last step is to purchase teaching and research supplies by using the fund from grants.

Maintenance tool in teaching and research also shows a critical situation due to lack of funding. Consequently, many devices cannot be repaired because of the repairing costs are very expensive. The priority of maintenance is based on the number of usage for equipments that are used to perform analysis and practical needs of students. When the maintenance cannot be done on schedule, the students' practical time table will also be affected. This will decrease the students' understanding on a certain experiment i.e., the demonstrator is only able to explain the theoretical part of the experiment, not the testing part. The faculty also keep on receiving complaint from students regarding the broken equipments. Other equipments such as white boards and drawing table also cannot be repaired and maintained due to the budget cut.

Calibration for the instrument is also very important in teaching and learning process. This calibration process is important to determine the measurement error of an instrument for the purposes of research accuracy. Due to the lack of allocation, some departments cannot perform calibration process. They choose to make a major calibration by selecting the tools that are not too expensive for the calibration process. In addition, the department makes a lot of internal calibration for the tools in the department. When the calibration process is not performed on schedule, the results obtained from the equipments cannot be use in the students' thesis to include in their thesis.

Table 1 Response interviews with officials of each department of science

Question a: **Travelling and living cost allowance (domestic) for the department?**

ANSWER:

- Many lecturers use their own grant
- Support staff can still apply
- Visiting to students' industrial training is reduced
- Use vehicles provided by UKM
- No more applications when attending external courses
- Only important vote is chosen
- About 30% allocation requests from academic staff
- Mostly used to visit the site, which attended by students
- No longer claims can be made by support staffs

Question b: **The process to attend the department's conference**

ANSWER:

- Lecturer uses their own grant
- Limiting the conference that can contribute to the department KPI
- No more business ticket in attending the conference
- Mostly used for the department's management conference
- Give priority to lecturers who have no grant
- Application is subjected to the department head
- Lecturers who do not have grant collaborate with lecturers who have grant as co-researchers.

Question c: **Department's office supplies?**

ANSWER:

- Sufficient for expenditure until the end of the year
- Deficiency occurs due to the increasing number of academic staff who recently returned from their studies
- Increasing due to the need for audit such as EAC, SSC and Space
- High production of manual for teaching and learning
- Printer toner is purchased on request only
- Used as a substitute for another vote
- No more stock for the department, such as toner
- Lecturers must use the grant allocation to purchase supplies
- High number of students' projects per each semester
- Printer toner and plotter are expensive and frequently used by students and staffs for students' projects
- Disposable supplies (not from the central store) toner 1 semester = 4 set toner cost RM20,000. Vot given is only RM25,000 per year

Question d: **Research supplies for department's graduate students ?**

ANSWER:

- Not yet used for graduate students
- No longer allowed to purchase graduates' personal needs
- Only for the purchase of research component for the workshop
- Vot is used to accommodate others
- Students are not supposed to claim unnecessary item, for example: hard disc
- Research grant is used to purchase students supplies
- Mostly used for the graduate students' disposable supplies (use the office's supplies vot)

Question e: **The department's teaching and researching supplies?**

ANSWER:

- Reduction of the number of sets of disposable supplies from 2 sets to 1 set for first year students
- Disposable supplies (sandpaper) are used repeatedly to cut costs
- Purchase made at the end of the year taken as a commitment in the next year
- Buy a lot of final project component, mini and laboratory requirements
- Unable to meet the requirement for competition such as ROBOCON
- The price of component increases
- Do not keep stock
- Components purchased on request
- Recycling of existing components
- Chemicals prices charged to the grant of lecturers (PCB board)
- The need is urgent for the use of disposable supplies for undergraduate and postgraduate (mainly chemicals and gas)
- Using another vote to cover the supplies
- Mostly used for experiments
- Overdue payments to suppliers paid in installments
- High number of rental payments (cooking gas)
- Purchases made using research grant
- Final year projects are short of funds because they are made at the end of the year (next year commitment)
- Usage planning is devised more with more details
- Mostly spent on workshop goods
- Workshop goods are at the same importance as office supplies (vot has to be increased)

Question f: **Maintenance of the department's teaching and research equipments?**

ANSWER:

- Many devices cannot be repaired
- Affects the experiments schedule (demonstrator can only explain the theory without the students doing the practical)
- No calibration for the device (expensive)

- Calibration performed by group
- Perform main calibration (select devices that are not too expensive for the calibration process)
- No calibration for the device (expensive)
- Calibration performed by group
- Perform main calibration (select devices that are not too expensive for the calibration process)
- Unable to calibrate all the equipment per schedule
- Repair process of teaching tools based on priorities
- Repair research equipments using grant
- Large equipments cannot be calibrated
- Preference for practical equipments
- Research grants are used to improve analytical tools
- Mostly used for internal calibration
- Calibration of the analyzing equipment is done one equipment per year if possible
- Prioritize important equipment (based on the level of usage)
- Maintenance is made but no maintenance vote for JSB
- Receive students' comments due to faulty equipment
- No maintenance and repair for teaching equipment

Question g: **Payments temporary / part-time staffs?**

ANSWER:

- No more overtime
- No more temporary demonstrator
- GRA and RA will become demonstrators
- Duties of staff are divided into laboratory and workshop for the staff to avoid overtime
- 6 experiments carried out simultaneously, lack of staff
- Lecturers also join the lab
- Overtime is only at the beginning of the year
- Overtime requirements are monitored strictly
- Only lecturers without RA and GRA require demonstrator
- Lecturers do not allow RA and GRA to become demonstrator
- No problem for support staffs to work overtime (small number)
- High dependency of temporary lecturers (1 semester = 7 person, part-time lecturer = RM 1500.00 x 7 + travel allowance)

Question h: **Hospitality and honorarium for the department?**

ANSWER:

- No more tea and food available for staff meetings
- Meetings must be more than 10 people and over 2 hours if foods are served
- All meetings are given cake and tea
- Mostly used for expenses for external assessors
- Encourage payment using grant money
- Food and beverages are only available for lecturers' meeting

Question i: **Training Services?**

ANSWER:

- No staff is sent to external courses
 - Training is done only by equipment suppliers
 - Using lecturers' grant for staff training
 - Suppliers should bear the cost for new equipment's training
 - No other outside training courses
 - There should be funding for staff training
-

Figure 11 shows the number of facilities that are experiencing delays in the process of repairing for 2010. These facilities include counter services, lobbies, lecture halls and students personal utilities. Delay in repairing the binding may cause serious injuries and most likely the student cannot take the exam. Lecture hall facilities are also important for teaching and learning process.



Figure 11 Facilities that need to be repair immediately.

3. Conclusion

From the survey, it shows that the decrease of the 2010 budget has a big impact to the teaching and learning process to all departments in Faculty of Engineering and Built Environment.

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